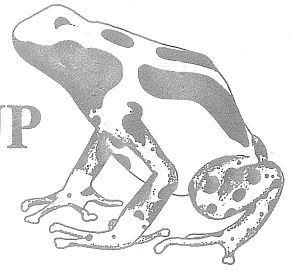


Dendrobates tinctorius
(2 White morph variants).

AMERICAN DENDROBATID GROUP

Newsletter No. 29

September-October 1996



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Ectotherm Scientific

STATEMENT OF PURPOSE

The purpose of the American Dendrobatid Group (ADG) is to educate enthusiasts and distribute information on all aspects of Dendrobatid husbandry and captive propagation, and to develop better communication between Dendrobatid breeders. The ADG is also interested in the maintenance and propagation of Mantellid frogs, Atelopid toads, and other unusual frogs and toads. Its format and bi-monthly distribution are designed to provide current information and new developments in the hobby. This Newsletter appears six times a year at a cost \$15.00 per calendar year. Back issues are \$3.00 each, or on a yearly basis: 1992 is available for \$5.00; 1993 and 1994 for \$10.00/year, and 1995 for \$12.50.

Subscriptions, comments, articles, photographs, etc. should be sent to Charles Powell (2932 Sunburst Dr., San Jose, CA 95111 Tel.: (408) 363-0926).

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Notes from the Editor

I want to thank everyone who made the Second American Frog Day a success, especially Anthony Hurndt who gave generously of his time and energy. Thanks to all. Frog Day was a great success. A few too many talks for a one day event, but a lot of fun was had by all. Hopefully next year many more people can attend the 3rd Annual Frog Day. Look for articles on the first and second Frog Days in some of the popular reptile and amphibian magazines in the next year (hopefully the near future).

Next year the ADG Newsletter will become a quarterly. The membership fee will remain the same at \$15. It will increase in size to compensate for being less frequent. It will become a quarterly because it has become too much work for one person to do every other month. Especially with raising four kids, working a full time job, and being very active in our church.

SELECTED ABSTRACTS FROM THE SECOND AMERICAN FROG DAY (SEPTEMBER 7, 1996 SAN JOSE, CALIFORNIA)

Poison Frogs and Other Amphibians at the Fugua Conservatory Ron Gaglardo

(Atlanta Botanical Gardens)

Abstract. - In September 1995 a new Dendrobatid frog exhibit was unveiled at the Dorothy Chapman Fugua Conservatory at the Atlanta Botanical Gardens. Because plants do not exist in a vacuum and we strive to educate visitors not only about plants, but also their relationships with their environment, including animals, the Dendrobatid frogs have proven to be a valuable asset to our facility. Three 110-gallon custom made vivariums were set up, displaying nearly a dozen species of Dendrobatids in very naturalistic settings. Breeding was achieved in several species, despite mixed species displays and all the problems that go along with that. In the Fall of 1995, about a dozen *Epipedobates tricolor* were released into the 10,000 square foot tropical rotunda where the first

progeny are maturing. *Dendrobates histrionicus* was also released in the rotunda. Eggs and tadpoles have been observed and it appears parental care is taking place. While offspring has been generated in back-up tanks, neonates of this species are yet to be spotted in the rotunda. We hope this will happen in the near future. Other items covered include an overview of the plant collections in the conservatory, plus other reptiles and amphibians established in the rotunda.

A Simple Technique for Rearing Dart Frog Tadpoles

B. Ian Hiler

(Aquarium of the Americas)

Abstract. - By simulating the natural water conditions found in the pools where dart frogs tadpoles are raised, a very successful rearing strategy can be simply managed in a timely fashion. A straw colored water produced by a dilution of two types of tannic acid solutions and rain water; "mimics" the wild aquatic conditions that *Dendrobates* tadpoles live in. The "tea" prevents bacterial and fungal problems while promoting a number of food items. Animals housed individually in shallow trays need only a water change every four weeks. The tadpole diet consists of regularly scheduled additions of tropical fish flake food produced in a tablet form. The food is directly consumed by the tadpoles, as well as, utilized by a number of minute animals which in turn is eaten by the tadpoles. By using this technique the neonate success rate is nearly 100%. Water analysis and a variety of other observations will also be discussed.

Notes on the Natural History and Care in Captivity of *Epipedobates silverstonei*

Anthony Hundt

(FrogNet)

Abstract. - *Epipedobates silverstonei* is rarely seen in the poison frog hobby, so there is little information in the popular literature about its care in captivity. Husbandry ideas for this species are derived from publications in scientific journals about its natural habitat. The temperature requirements are much cooler than for other poison frogs, because it is restricted to the Cordillera Azul region of the Peruvian Andes at elevations between 1,300 and 1,800 m. In this region the average midday temperature is generally 18°C to 20°C (64°F to 68°F) rising rarely to 25°C (77°F). The average night time temperature is 16°C to 17°C (61°F to 63°F) and rarely falls below 14°C (57°F). Rearing the tadpoles also requires cooler temperatures. I recommend between 18°C and 20°C (64°F to 68°F).

Amphibian Medicine and Pathology - What a Veterinarian can do for the Poison Frog Collector

Brian Monk

(Virginia-Maryland College of Veterinary Medicine)

Abstract. - For years the veterinary medicine of amphibians has largely been practiced by the owners of these specimens without consultation of a veterinarian. Disease was diagnosed solely on empirical or anecdotal evidence. Treatment has been based on similar evidence. Veterinarians, in general, are trained in the diagnosis and treatment of disease, using personal experiences, the documented experience of other vets, and specific modern diagnostic procedures. A well trained exotic animal vet is capable of providing a plausible diagnosis and potential treatment protocol for

even previously unidentified diseases in all species, including amphibians.

Furthermore, veterinarians are beginning to study amphibian diseases in greater detail, and certain syndromes and specific disease states are proving to be relatively common in all collections. These diseases range from simple (though lethal) bacterial infections to syndromes, like spindly-leg, that have a multitude of causes from genetic to dietary.

This talk is designed to familiarize the poison frog enthusiast with the current state of veterinary medicine, the approach a veterinarian takes to diagnose a disease, the current methods of treating disease states, the most relevant diseases present in poison frog collections, and the idea that a veterinarian is a valuable colleague that can prove very helpful in almost all aspects of maintaining an amphibian collection.

SPECIES INFORMATION

Gerd Voss of the IGF has put together a questionnaire on various aspects of keeping and breeding poison frogs. The results of one of these questionnaires is presented here.

If you keep and breed any poison frog please take the time to fill out the questions presented here for the frogs you keep so we can produce captive care and breeding guidelines for all the various frogs in our care. Send your information to either the Newsletter Editor (Charles Powell, 2932 Sunburst Dr., San Jose, CA 95111-2264) or Gerd Voss (Am Heerweg 19, D-30900 Bissendorf, Germany).

Epipedobates azureiventris by Matthias Kneller

Physical description

Average size of female: 28 mm.

Average size of male: 25 mm.

How to identify males from females:

Typical color morph: Dorsal- black with yellow stripes on the side, legs blue/green to yellow/green dots, Ventral-belly and legs blue with black dots.

Other color morphs:

Maximum size of tadpoles: 45 mm.

Call: Long trill with short interruptions.

Biotype and distribution

Distribution: Peru, Province San Martin.

Biotype: Primary rain forests from sea-level to 700 m.

Population density: Isolated individuals

Relative humidity during dry season: 80%

Temperature range: 24°C day/18°C night.

Rainy season: December to April

Are the frogs sitting in sunlight: Never, only in shade and always on the ground.

When is their active time: All day although more so after rain.

What kinds of food do they find: Ants and mites.

Vivarium

Recommended dimension: At least 50 x 50 x 50 cm.

Terrarium landscaping: Bottom with moss and use thick roots.

How often do you simulate rain: At least daily.

Lighting: 20 watts.

Adult population density: 1 pair.

Average age in terrarium: 5 years.

Maximum age in terrarium:

Behavior - outgoing or reclusive: Sitting under large leaves and roots.

Breeding

Eggs/clutch: 12 to 16

Where are they placed: Under 1/2 coconuts, sometimes in bromalids.

Sensitive to light: no

Development time for eggs: Two weeks, depending on temperature.

Development time for tadpoles: Six weeks

Food for tadpoles: all kinds

Tadpoles kept singly or in groups: can be kept together, not aggressive.

Are F1 different from wild caught parents: No.

NOTES ON IAN HALLETT'S ARTICLE ON *DENDROBATES AURATUS*

Jack Frenkel

On page 2. paragraph:5 of Ian Hallet's article he states: "Even with the addition of the fungicide, in almost every clutch at least one egg was lost to fungus and was promptly removed to prevent contamination of the remaining eggs." This sounds suspiciously like an unfertilized egg which got infected with fungi or bacteria, which fertilized eggs and embryos resist. I have photographs of such findings in clutches, and usually the adjacent eggs do not get infected, but develop an embryo.

Editorial note: Ian Hallet's article "Husbandry and breeding of *Dendrobates auratus* - the green and black poison frog" was published in the ADG Newletters, 27 & 28.

HELPFUL HINTS

UV light and frogs: Thanks to Jack Frenkel and Kay Klausing we have a translation of part of the recent German IGF Informationen, 1 (4/1996). One article by Matthias Schulet deals with UV light from tanning saloons used in the terrarium. He states "A pair of *Dendrobates fantasticus* laid eggs every 2 weeks since April, 1994. The number of eggs was between two and eight. None of the eggs laid until June 1994 produced a tadpole, the yolk liquified after two to three days. In mid-May 1994 I installed a 7 watt UVA fluorescent lamp (Phillips TL 29D 18/09 N 4k). The lamp was turned on twice daily for about 10 minutes each time. The first changes were observed after about 6 weeks, some of the eggs developed into tadpoles. After 10 to 12 weeks the number of eggs per clutch increased to six to ten. Since July, 1994 90% of the eggs have developed into tadpoles...."

Jack Frenkel has the following comments in regard to the translation above "Because the Phillips lamps may be difficult to obtain in the USA, suitable UV lamps can be obtained from Ultraviolet Resources (13000 Athens, Cleveland OH 44107, Tel: 800-247-3251). The UVA light emit light in the 320-400 nm range, peak 350, and are called a black light, is less effective for tanning, nor for induction of vitamin D synthesis. Because of its spectrum it is safer and can probably be used continuously.

"UVB light emit light in the 270 -380 nm range, with peak at 315, are best for tanning and vitamin D induction. These Sun lamps should be used for only a short while, probably hours, not too close to the frogs. See article by Gehrman in Vivarium, 5(5): 16-21. A cheaper way to provide vitamin D3 with calcium is by using Rep-Cal, obtainable from Research Labs, P.O.Box 727, Los Gatos, CA 95031. There may be other actions of light between 280 and 400 nm which have a salutary effect on health of amphibia. However, higher natural UVL levels, because of atmospheric ozone depletion, have been blamed for the disappearance of certain frogs in the US and elsewhere."

ANNOUNCEMENTS

German Frog Day - The 400 members of the IGF from Germany, Holland, Denmark, Sweden, Belgium, Switzerland, Austria and Hungaria will celebrate their Frog Day November 2-3 in Weibersbrunn near Frankfurt, Germany. Saturday at 10 AM will start with sales of frog related materials, plants, books etc.; at 1 PM starts the sale of all kinds of live food and at least 30 different kinds of poison frogs (100's of individuals); this is followed at 5 PM by two slides show showing frogs in the wild and the biotypes in which they live, and finally at 7 PM by a dinner. Saturday talks start at 9 AM and are finished by 11 AM. Many people stay at the hotel which has a over 100 beds at from \$26 to \$55/bed/night (breakfast included). For further information contact Gerd Voss (Am Heerweg 19, D-30900 Bissendorf, Germany. e-mail: Gerd_Voss@msn.com. Telefax: Country code + 0511-774059).

NEW LITERATURE


Dendrobatids

Johnson, James, 1995, Living jewels: Poison dart frogs. *Captive Breeding*, 3(2): 12-15.

Meyer, Eberhard, 1996, Eine oliv-gelbe variante von *Dendrobates granuliferus* aus dem zentral-Pazifischen tiefland Costa Ricas: erste Beobachtungen zur Fortpflanzungsbiologie. *Herpetofauna*, 18(100): 21-26.

ADS:

Rates for business card adds are \$10 per issue or \$50 per year. If you are interested please contact the Newsletter editor.




Chamaeleo quadricornis

TUJUNGA, CA

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REPTILE SPECIALTIE (John Uhern, 7473 Foothill, Tujunga, CA 91042 Tel. (818) 352-1796; Fax (818) 353-7381) has various captive breed Dendrobatids and wild imported *Mantella* for sale. Write or call for information.

Ads for sale of frogs, or requests or offering of breeding loans, etc. are free to members and will run for two issues only, unless the Newsletter editor is notified.

<i>Dendrobates azureus</i>	\$150 ea.	Chip Blackburn
<i>Dendrobates leucomelas</i>	\$50 ea.	319 Mt. Vernon Ave.
<i>Dendrobates tinctorius</i> 'powder blue'	\$75 ea.	Alexandria, VA 22301
		(703) 549-5827
<i>Epipedobates tricolor</i> (wine red with blue)	\$35 ea.	Peter Fippinger
<i>Phyllobates vittatus</i>	\$45 ea.	2535 Clermont St.
<i>Mantella expectata</i> (1.2, w.c.)	\$35 ea.	Denver, CO 80207
<i>Mantella laevigata</i> (4 c.b., adults)	\$45 ea.	(303) 399-5684
<i>Microhylid achatina</i> (1.2, w.c.)	\$25 ea.	
<i>Dendrobates reticulatus</i> tadpoles	\$30 ea.	Melissa Gaglardo
frogllets	\$40 ea.	317 SW 9th Ave. E
		Fort Lauderdale, FL 33312
		(954) 767-6059

Dendrobates tinctorius 'cobalt,' 'giant orange,' and 'white,' and some *Dendrobates azureus*. Ted R. Kahn (P. O. Box 1375, Sterling, VA 20164-1375. Tel.: (703) 242-4543.

Starter cultures (extra large) of confused flour beetles. Easy to maintain. Excellent source of protein. Extremely prolific breeders. Posion frogs of all sizes from froglets to adults love both larvae and adults. \$10/culture or 2/\$15. Instructions included. Contact Jeff McClure (1331 Longfellow Dr., Clarksville, IN 47729. Tel.: (812) 944-5859.

<i>Epipedobates tricolor</i> 'burgandy/blue'	\$30 ea.	Patrick Nabors
<i>Epipedobates tricolor</i> 'burgandy/white'	\$30 ea.	(309) 662-2609
<i>Dendrobates auratus</i> 'Costa Rica'	\$25 ea.	Eric Pflaging
<i>Dendrobates leucomelas</i>	\$60 ea.	Hillside Herps
10% discount for ADG members		220 Hillside Dr.
		Clermont, FL 34711
		(352) 242-1616
<i>Dendrobates auratus</i> 'Hawaii'	\$25 ea.	Alicia Pinzari
<i>Dendrobates tinctorius</i> 'cobalt'	\$70 ea.	1207 Lunaai St.
		Kailua, HI 96734-4546
		(808) 262-5718
<i>Dendrobates auratus</i> 'Panama/ green-blue stripes	\$40 ea.	Charles L. Powell
Tadpoles:		2932 Sunburst Dr.
<i>Dendrobates auratus</i> , 'Panama/green-blue stripes'	\$30 ea.	San Jose, CA 95111
<i>Dendrobates ventrimaculatus</i> 'Peru/Orange' \$50 ea.		(408) 363-0926
<i>Dendrobates tinctorius</i> 'cobalt'	\$50 ea.	Dave Ryan
<i>Dendrobates tinctorius</i> 'powder blue' F1	\$75 ea.	3350 21st Ave. SW
		Naples, FL 33964
		(941) 353-3113
		DRyan51724@aol.com

<i>Dendrobates auratus</i> 'Costa Rican'	\$25 ea.	Aaron Savino
<i>Dendrobates auratus</i> 'Hawaii'	\$25 ea.	211 S. Fremont St., #110
<i>Epipedobates tricolor</i> 'Santa Isabela, Ecuador'	\$25 ea.	San Mateo, CA 94401
		(415) 347-5198

Wanted:

Dendrobates auratus 'blue' or 'green' - male
Dendrobates leucomelas 'yellow' - female

Odo N. Dietel
369 Acorn Ave.
Telford, PA 18969
(215) 721-0329

Dendrobates pumilio established w.c. or c.b.

Melissa Gagliardo
317 SW 9th Ave. E
Fort Lauderdale, FL 33312
(954) 767-6059

Dendrobates pumilio - female
Epipedobates trivittatus '3 stripes'

Ron Gagliardo
1180 Oldfield Rd.
Decatur, GA 30030
(404) 373-4601

Dendrobates lehmanni
Epipedobates silverstonei
Phyllobates terribilis

Anthony Hundt
P. O. Box 284
Ottawa, IL 61350
(815) 433-4679 (Monday, Thursday, Friday,
Saturday, after 5:30 PM CST)
thundt@rs232.bb-elec.com

Dendrobates fantasticus
Dendrobates tinctorius 'cobalt' - female
Epipedobates silverstonei
Phyllobates aurotaenia

Brian Lange
2010A S 9th St.
Manitowoc, WI 54220
(414) 683-1759

Dendrobates tinctorius 'Brazil'

Jeff Lee
910 Constitution Dr., #718
Durham, NC 27705
(919) 382-3059

Dendrobates leucomelas - female

Jeff McClure
1331 Longfellow Dr.
Clarksville, IN 47129

Dendrobates fantasticus - male

Charles Powell
2932 Sunburst Dr.
San Jose, CA 95111-2264
(408) 363-0926

Societies

AMERICAN TARANTULA SOCIETY: For enthusiasts and scientists. Forum magazine (6/yr) educational, entertaining and readable. Over 150 Accurate scientific & common names of tarantulas

and scorpions in each issue. Contact: ATS, P. O. Box 2594, S. Padre Island, TX 78597. \$15/year US, \$20 Canada, \$30 elsewhere.

INTERNATIONAL HYLID SOCIETY: A new, non-profit organization dedicated to treefrogs enthusiasts worldwide. "The Bulletin of the International Hylid Society" will be published quarterly starting in January/February 1996. Membership is \$15/calendar year. For information or membership contact: William Brown, Amphibian Conservation and Research Center, 1423 Alabama St., Lafayette, IN 47905 USA. Tel: (317) 742-5331; e-mail: 102436.2415 @compuserve.com.

NEW MEMBERS

Ivan Clark (England)
Ben Davis (Washington)
Martin DeSomma (Connecticut)
Ben Doan (California)
A. J. Donnelly (New Jersey)
Vincent Dorn (California)
Devin Edmonds (Wisconsin)
Kurt Godula (California)
Todd Gross (Florida)
Robert Keller (North Carolina)
Yoshimitsu Kurachi (Japan)
Del Lausa (New York)
H. B. Lim (Illinois)
Tor Linbo (Washington)
Jennifer Lindsey (Arizona)
Jutti Marsh (California)
Matt Mitzel (Arizona)
Rich Nazareth (Florida)
Timothy Paine (California)
Shawn Pattison (Florida)
Suzanne Warner Pierot (New York)
Andy Sexton (Tennessee)
Bob Schafer (California)
Oliver & Matthias Schmidt (Germany)
Peter Soukup (Maryland)
Geoff Trager (Florida)
Minor Alberto González Ugalde (Costa Rica)
Phil Wilcox (Mississippi)